



L Number	Hits	Search Text	DB	Time stamp
1	1105	substrate and (seal\$4 adj ring) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:26
2	1137	substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:27
3	51706	substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:02
4	103	(substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:40
5	1203	(substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:29
6	1	"6579408"	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:35
7	0	6579408.URPN.	USPAT	2004/10/20 11:35
8	0	6579408.URPN.	USPAT	2004/10/20 11:36
9	4	("5275690"   "5324410"   "5578167"   "6171437").PN.	USPAT	2004/10/20 11:36
10	4	("5275690"   "5437757"   "5542559"   "5695566").PN.	USPAT	2004/10/20 11:37
11	3	6171437.URPN.	USPAT	2004/10/20 11:37
12	37	((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:43
13	6	(US-6746880-\$ or US-6444027-\$ or US-5324410-\$ or US-6579408-\$ or US-6171437-\$).did. or (US-20040104402-\$).did.	USPAT; US-PGPUB	2004/10/20 11:40
14	36	((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)) not ((US-6746880-\$ or US-6444027-\$ or US-5324410-\$ or US-6579408-\$ or US-6171437-\$).did. or (US-20040104402-\$).did.)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:41
15	426	((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:44

16	291	(((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)))) and (substrate with contact)) and electrode	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:44
17	121	(((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)))) and (substrate with contact)) and electrode) and charge	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:45
18	99	(((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)))) and (substrate with contact)) and electrode) and charge) and current	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:45
19	99	(((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)))) and (substrate with contact)) and electrode) and charge) and current) and surface	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:46
20	80	(((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)))) and (substrate with contact)) and electrode) and charge) and current) and surface) and (wir\$4 and (insulat\$4 or dielectric) electrolyt\$3)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:01

21	67	((((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact) and electrode) and charge) and current) and surface) and (wir\$4 and (insulat\$4 or dielectric) electrolyt\$3)) and etch\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:48
22	66	((((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact) and electrode) and charge) and current) and surface) and (wir\$4 and (insulat\$4 or dielectric) electrolyt\$3)) and etch\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:48
23	67	((((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact) and electrode) and charge) and current) and surface) and (wir\$4 and (insulat\$4 or dielectric) electrolyt\$3)) and etch\$4) and (process or method)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:51

24	54	((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact) and electrode) and charge) not (((((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact) and electrode) and charge) and current) and surface) and (wir\$4 and (insulat\$4 or dielectric) electrolyt\$3)) and etch\$4) and (process or method))	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:51
25	9986	substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))).clm. and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:02
26	103	((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not ((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring)))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact) and electrode) and charge)	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:03

27	66	(((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not ((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact)) and electrode) and charge)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)) ((US-6746880-\$ or US-6444027-\$ or US-5324410-\$ or US-6579408-\$ or US-6171437-\$).did. or (US-20040104402-\$).did.) (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact)) not ((US-6746880-\$ or US-6444027-\$ or US-5324410-\$ or US-6579408-\$ or US-6171437-\$).did. or (US-20040104402-\$).did.)))	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:07
28	9910	(substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))).clm. and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not ((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact)) and electrode) and charge))	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:07

29	1067	((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))).clm. and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not ((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact)) and electrode) and charge))) and (seal\$4.ab. and (substrate and (body or base or board or plate).ab.))	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:08
30	333	((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))).clm. and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not ((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact)) and electrode) and charge))) and (seal\$4.ab. and (substrate and (body or base or board or plate).ab.))	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:08

31	196	((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))).clm. and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4) not ((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact)) and electrode) and charge))) and (seal\$4.ab. and (substrate and (body or base or board or plate)).ab.)) and electrode	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:09
32	85	((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))).clm. and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4) not ((((((substrate and (seal\$4 or (seal\$4 adj (mean\$3 or ring))) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) not (((substrate and (seal\$4 adj (mean\$3 or ring)) and (gas or liquid) and (open\$4 or hole or trench) and (base or board or plate or body) and conduct\$4) and ((outer or second or inner) adj seal\$4)) and (substrate with contact))) and (substrate with contact)) and electrode) and charge))) and (seal\$4.ab. and (substrate and (body or base or board or plate)).ab.)) and electrode.ab.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 12:09
-	34	birner-albert.in.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/20 11:22
-	71	franosch-martin.in.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/19 19:07
-	57	goldbach-matthias.in.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/19 19:07
-	150	lehmann-volker.in.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/19 19:08
-	16	lutzen-jorn.in.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/19 19:08



-	262	birner-albert.in. franosch-martin.in. goldbach-matthias.in. lehmann-volker.in. lutzen-jorn.in.	USPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/19 19:08
-	3	(birner-albert.in. franosch-martin.in. goldbach-matthias.in. lehmann-volker.in. lutzen-jorn.in.) and (seal\$4 adj ring) and substrate and (board or base or plate) and (hole or open\$4) and conduct\$4	USPÄT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/19 19:17
-	9	("4428815"   "4876224"   "5209833"   "5437777"   "5463526"   "5511428"   "5911461"   "6217724"   "6444027").PN.	USPAT	2004/10/19 19:11
-	15	("4322592"   "4496609"   "5192371"   "5200157"   "5242501"   "5516367"   "5679405"   "5769942"   "5856240"   "5904769"   "5960555"   "6103014"   "6127286"   "6129047"   "6184154").PN.	USPAT	2004/10/19 19:14
-	4	("5071510"   "5209833"   "5324410"   "6120657").PN.	PNUSPAT; US-PGPUB; EPO; JPO; IBM_TDB	2004/10/19 19:17
-	3	("4043894"   "4696729"   "5126031").PN.	USPÄT	2004/10/19 19:18
-	12	5324410.URPN.	USPAT	2004/10/19 19:18